



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,412	12/07/2001	Russel Shirley	AMDA.499C1 (TT4002/03C1)	6042

7590

09/09/2003

Attention of: Robert J. Crawford  
CRAWFORD PLLC  
Suite 390  
1270 Northland Drive  
St. Paul, MN 55120

EXAMINER

RODRIGUEZ, PAUL L

ART UNIT	PAPER NUMBER
2125	

DATE MAILED: 09/09/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 12

Application Number: 10/010,412  
Filing Date: December 07, 2001  
Appellant(s): SHIRLEY ET AL.

Robert J. Crawford  
For Appellant

**MAILED**

SEP 09 2003

**Technology Center 2100**

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed July 18, 2003.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

The rejection of claims 1-6 and 8-10 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7). Applicant does not give a separate argument regarding the grouping of claims, appellant merely point out the differences between them and explains why the claims of the group are believed to be separately patentable. Merely pointing

Art Unit: 2125

out differences in what the claims cover is not an argument as to why the claims are separately patentable.

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

2001/0047222	WEISLER et al	11-2001
5,191,535	TERAO	3-1993

**(10) *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-6, and 9-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Wiesler et al (US2001/0047222). The claimed invention reads on Wiesler et al as follows:

Wiesler et al discloses (claim 1) a computer-based automated method for tracking the movement of masks (reticle is considered a mask, paragraph 14 lines 1-2) used in a wafer processing facility (paragraphs 5, 15-17), the masks being moved in mask pods (reticle carriers, paragraphs 5, 6), the method comprising for each mask, generating mask data that includes a mask identification code (figures 3a, paragraph 19), using a computer (reference number 204) to process the mask data, including cross-referencing respective mask identification codes to pod identification codes (figure 3A, Reticle ID, Reticle Carrier ID, paragraph 19, claims 3, 4), updating the mask data to include a facility location identification code (storage of reticle in stocker, figure 3B, Current Location), (claim 2) wherein said updating occurs as each mask moves to a subsequent location during wafer processing (figure 3B, paragraph 19, 20, including

Art Unit: 2125

current and last locations) and said updating includes adding a tool identification code to the mask data set when the mask arrives to a tool location (processing stations, paragraph 15, 19, 20, figure 3B, current and last locations), (claim 3) after said updating, further including creating a historical database for the mask data corresponding to each mask and tracking the movement of each mask when the mask arrives to a new location (paragraph 5, figure 3B, current and last locations, paragraph 19), (claim 4) after the updating step, further including the step of providing a material control system that sends a selected mask to a new location (paragraph 17), thereby triggering all update of the mask data set for the selected mask when the mask arrives to the new location (paragraphs 5, 17), (claim 5) further including storing mask data (paragraphs 5, 19, figure 3), (claim 6) wherein storing mask data includes using the computer to track the condition of each mask (paragraphs 5, 17, 20), the mask condition including particle contamination, mask degradation, number of exposures, number of times mask is handled and mask structural defects (figure 3E, reference number 310), wherein the masks are selected from the group consisting of reticles, wafer processing masks and solder bump masks (paragraph 14), (claim 9) further including matching the mask to a carrier (figure 3A, reticle ID, reticle carrier ID), the carrier having a carrier identification code (reticle carrier ID, figure 3B) and storing the carrier identification code data as part of the mask data (figure 3B, paragraph 19), (claim 10) further including tracking the mask movement from a material stocker, through a stepper and through an inspection tool while in a mask pod (paragraphs 15, 16), (claim 11) a system (figure 2, paragraphs 17, 18) for tracking the movement of masks used in a wafer processing facility (paragraphs 5, 6), the masks being moved in mask pods (reticle carriers), the system comprising for each mask, means for generating mask data that includes a mask identification code (figure

Art Unit: 2125

3A, paragraph 19), and computer means for processing the mask data (reference numbers 202, 204), including cross-referencing respective mask identification codes to pod identification codes (figure 3A, reticle ID, reticle carrier ID, paragraph 19, claims 3, 4) and updating the mask data to include a facility location identification code (storage of reticle in stocker, figure 3B, current location), (claim 12) further including a material handling system adapted to move the masks and mask pods to multiple locations in the wafer processing facility (paragraph 16), (claim 13) wherein the mask data set further includes a tool identification code, generated when the mask arrives to a new tool location, that is stored in the computer means (figure 3B, current and last location, processing station, paragraph 15), (claim 14) a computer-based automated method for tracking the movement of masks (reticles) used in a wafer processing facility (paragraphs 5, 6), the masks being moved in mask pods (reticle carriers, paragraphs 5, 6), the method comprising for each mask, generating mask data that includes a mask identification code (figure 3A, paragraph 19), using a computer (reference number 204) to process the mask data, including cross-referencing respective mask identification codes to pod identification codes (figure 3A, reticle ID, reticle carrier ID, paragraph 19, claims 3, 4) and updating the mask data to include a facility location identification code (storage of reticle in stocker, figure 3B, current location), conducting a degradation analysis on each mask that includes a comparison of the mask data to a mask baseline specification so as to generate degradation data for each mask (figure 3B, inspection, figure 3E, inspection results, paragraph 20), and analyzing and tracking the mask degradation data to determine the useful life of each mask (paragraph 20).

Art Unit: 2125

Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiesler et al (US 2001/0047222 A1) in view of Terao (U.S. Pat 5,191,535).

Wiesler et al teaches most all of the instant invention as applied to claims 1-7 and 9-14 above. Wiesler et al fails to teach wherein said storing mask data includes using the computer to match a reticle (functionally same as a mask) and a wafer lot to an event on a processing line.

Terao teaches using the computer to match a mask (reticle is functionally same as a mask) and a wafer lot to an event on a processing line (col. 1 lines 32-55).

Wiesler et al and Terao are analogous art because they are both directed to a reticle or mask handling systems.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the matching of reticles to wafer lots of Terao in the reticle management system of Wiesler et al because Terao teaches that the identification of a “to be processed lot” and mask prior to processing by a production unit reduces standing time of the production unit, therefore reducing overall production time (col. 3 lines 5-12), using a computer control system is also known and taught to provide faster processing of mask data, which was previously done manually (col. 1 lines 10-20), these reasons provide adequate motivation to combine the teachings of these references.

**(11) Response to Argument**

Appellant argues that the claim rejections cannot be maintained when the cited publication does not satisfy the section 102(e) requirement of prior art, that the Examiner erroneously relies upon the priority to a provisional filing date, that the Examiner refused to

Art Unit: 2125

support the rejection by providing this provisional patent document as requested by the appellant and that the Examiner "did not comply with such fundamental rules" to provide the provisional document.

In response to these arguments, the Examiner will provide an overview of the prosecution of this application regarding the Wiesler et al Publication (now referred to as '222). The Examiner originally made a 102(a) rejection using the '222 reference on May 31, 2002, relying on the fact that the subject matter presented in the '222 was known or used by others in this country. The rejection was made without stating that the rejection was based on the provisional filing date listed on the publication which is April, 25, 2000. In response to the first office action (submitted September 10, 2002) Applicant argued then that the publication did not meet the requirements for section 102(a) because the present application claims priority to 09/665,646 and has the effective filing date of September 19, 2000 and was therefore filed after the filing date of '222 (April 25, 2001) In light of Applicants argument and in light of new guidance provided to the patent examining corps regarding pre-grant publications, the Examiner changed the grounds of rejection from a 102(a) to a 102(e), still based on the '222 publication. The examiner considered this rejection proper based on the published date of the '222 document which predated the filing date of the instant application (December 7, 2001), also in the provisional filing date of '222 also predated the priority date of the instant application. In response to the 102(e) rejection Applicant requested that the Examiner reconsider the previous rejection based upon '222, again arguing that '222 was not prior art and stated in the arguments that "If the Examiner is relying on the provisional filing date...Applicant requests evidence that the written description of the provisional adequately support the claims of the non-provisional application".



Art Unit: 2125

In response to the request for evidence, the Examiner ordered and reviewed the provisional application document and concluded that the claims of the non-provisional application of '222 were adequately supported by the provisional disclosure, this was considered to be an adequate response to the request made by the Applicant. Examiner presented his findings in the next office action under the heading "response to arguments" (office action of February 12, 2003) where the Examiner responded by stating that the Examiner "has reviewed the contents of provisional application 60/199,453 and has concluded that '222 is fully supported by the disclosure of the material presented in the provisional document". The Examiner considered this acknowledgement to be a complete response to the Applicant request for evidence because specific evidence requested and nowhere in the request for reconsideration dated January 14, 2003 did the Applicant request a copy of the provisional document which is now argued. Also in the office action of February 12, 2003, the Examiner indicated to the applicant how a copy of a provisional document could be obtained and pointed to C.F.R. 1.14(c)(1)(i) for guidance, this in no way was intended to be an invitation by the Examiner for the Applicant to obtain a copy of the provisional, only a reminder of the practices and procedures of the office. Based upon the status of the case and arguments being non-persuasive, the rejections were maintained and the action was made final (February 19, 2003). In response to the Examiners final rejection applicant submitted a response on April 17, 2003 again requesting reconsideration. Applicant acknowledged the Examiners reference on how one may go about obtaining a copy of the provisional document (C.F.R. 1.14 (c)(1)(i)) but then stated (for the first time) that patent statutes "mandate that the examiner provide any such provisional patent documents relied upon and or used to support the rejection(s)", and directed the Examiner to 35 U.S.C. 132 and 37 C.F.R.

Art Unit: 2125

1.104 (see paper 8, page 2, paragraph 3) for support of the referenced statutes. Following consultation with Supervisory Examiners, Quality Assurance Specialists and after a review of the code and rule pointed out by the Applicant, the Examiner considered his actions to be in compliance with the recited statute and rule because the Examiner did inform the Applicant where a copy of the provisional could be obtained and also how to acquire a copy of the document. Appellant also argues that the applicant would not have sufficient time to obtain and assess the merits of the provisional document. In response to this argument, the Examiners original rejection based on the '222 document was made on May 31, 2002, since Applicant was made aware of this document nearly a year prior to the advisory action, the Examiner considers that ample time was afforded to the Applicant in order to officially obtain a copy of the provisional document and that procedures to obtain a copy of the document were in place.

Therefore, in response to the Appellant's charges regarding the prior art status of '222. The Examiner has complied and responded to each and every request as made by the Applicant as set forth in the MPEP and has responded to the non specific request for evidence made by the applicant in the response filed January 9, 2003, of which there was no request for a copy of the provisional patent document, only a request for evidence which the Examiner provided. Finally, the Examiner contends that the prior art in question was initially cited by the Examiner on May 31, 2002 which would have provided the applicant ample time to request a copy of the provisional document in accordance with the rules provided by the office, however a request for a copy was not made. Therefore, it is the Examiner position that the Examiner complied with all requests made by the Applicant and that the '222 reference is prior art based upon the provisional filing date of the application.

Appellant argues that the rejection of claims 1-6 and 9-14 should be reversed because '222 fails to provide correspondence to every claim limitation, that the rejection fails to show a complete correspondence between '222 and the claimed invention and fails to present the rejection in a clear and understandable manner. Specifically, appellant argues that the publication fails to teach the claimed codes. Examiner relies upon the disclosure associated with figures 3A and 3B and paragraphs 15, 19. Figures 3A and 3B list attribute names, such as "Reticle ID", "Reticle Carrier ID", "Location Cleaned", "Location Inspected", "Current Location" and "Last Location", each relating to a specific attribute, each attribute is defined by character string of 255 characters maximum. The Examiner considers these character strings to be the claimed identification codes of the instant invention. Therefore it is the Examiner position that the specific character strings of '222 are the claimed codes. Appellant argues that the office actions repeatedly cite paragraph 15 as the basis for support. Examiner points out that none of the rejection made by the Examiner, which list each claim limitation relies only on the paragraph 15 for support of a claim limitation, it is paragraph 15 in combination with other paragraphs, figures and claim language which build support for each of the claim limitations. Therefore, in no instances does the Examiner only rely on paragraph 15, it is paragraph 15 in combination with other cited material of the '222 document. Appellant argues that the use of "current location" has been used to support various claim limitations such as "facility location identification code" and "tool identification code". Examiner is relies on the current location character string that is used to describe not only the facility locations (bays which are considered a facility), but also to the stockers and processing stations that are considered tools. Therefore '222 taken as a whole the "current location" character string not only identifies the facility with code but also the tools

Art Unit: 2125

with codes because the character string would inherently provide a code that would identify each. Examiner is relying on the entire disclosure of '222 and considers the reference to not only anticipate the applicant's claimed invention but also to completely support the claimed invention of the applicant.

Appellant argues that the rejection of claims 8 and 15 are devoid of motivation for modifying the '222 publication with U.S. Pat 5,191,535 (now referred to as '535). Examiner considers the teachings of '535, specifically "reducing standing time" and "reducing production time" as pointed out in the claim rejection as clear motivations to combine the '535 reference with the '222 reference. Also, the use of a computer to provide faster processing of a function that was previously performed manually provides yet another to combine because of increased efficiency. Each of the advantages are considered to provide ample motivation to combine the references because these motivations are recited explicitly in the prior art references themselves. Therefore the Examiner considers there to be adequate motivation to modify '222. Appellant argues that the proposed combination is vague and would likely undermine the purpose of the '222 publication. Examiner considers the rejection as written is a clear and concise rejection and in no way should it be considered vague. The Examiner identifies each limitation that is taught and not that is not taught by the '222 publication and clearly identified what limitations are taught by modifying reference '535. Therefore the rejection as written should in no way be considered vague. In response to the argument that the combination would "likely undermine" the '222 publication, the Examiner will address the issue in light of establishing a prima facie case of obviousness. To establish a prima facie case it first requires motivation, which as addressed above is considered to be present by the Examiner and clearly taught by the '535

Art Unit: 2125

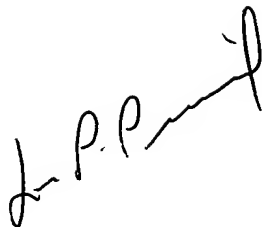
reference by teaching a reduction of standing and processing time. Second, there must be some reasonable expectation of success. Because the references are analogous and are both related to reticle or mask handling, the Examiner considers the teachings of '535, in addition to the disclosure and teachings of '222 that one of ordinary skill in the art would consider some reasonable expectation of success, without "undermining" the purpose of '222 because the Examiner is only relying on the teaching of matching a mask and wafer lot to an event on a processing line of '535. Third and finally, the prior art reference or references must teach or references when combined must teach or suggest all the claim limitations. Examiner points out that the rejections presented by the Examiner each addressed all claim limitations and have identified each prior art teachings or suggestions for each of those limitations. Therefore the Examiner considers the 103(a) rejection as establishing a proper prima facie case in regards to the combination of references and it is the opinion of the Examiner that the combination of teachings would not undermine the '222 publication.

For the above reasons, it is believed that the rejections should be sustained.

Art Unit: 2125

Respectfully submitted,


Paul L Rodriguez  
Examiner  
Art Unit 2125



LEO PICARD  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

PLR  
September 4, 2003

Conferees  
Leo Picard  
Jack Harvey



JACK B. HARVEY  
QUALITY ASSURANCE SPECIALIST  
TECHNOLOGY CENTER 2100

Attention of: Robert J. Crawford  
CRAWFORD PLLC  
Suite 390  
1270 Northland Drive  
St. Paul, MN 55120